J. Haglund* (jhaglund@math.upenn.edu), M. Haiman and N. Loehr. A Combinatorial Formula for the (type A) nonsymmetric Macdonald polynomial. Preliminary report.

We begin by overviewing our recent combinatorial formula, involving generalizations of the permutation statistics inv and maj, for the (type A) symmetric Macdonald polynomial. We then introduce a generalization of this formula, for the (type A) nonsymmetric Macdonald polynomial. We discuss the proof, which involves lemmas dealing with the action of Hecke operators on sets of combinatorial objects we call "fillings". (Received September 16, 2005)